

**REMARKS**

Claims 2-6, 8 and 18 were examined in the present application. Claims 2, 3, 8 and 18 have been objected to because of informalities. Claim 2 has been rejected under 35 U.S.C. § 103(a) over Clemens (U.S. Patent 5,945,825). Claim 8 is provisionally rejected under 35 U.S.C. § 101 over claim 4 of co-pending application serial no. 11/682,841. Claims 3 and 18 are objected to for being dependent upon a rejected base claim but are deemed allowable. Claims 4-6 have been allowed. Claims 2, 3 and 8 have been amended hereby. Claim 19 has been added hereby. In light of the above amendments and below remarks, reconsideration of the present application is respectfully requested.

In paragraph 28 of the Office Action, claims 4-6 have been allowed. Applicants gratefully acknowledge the allowance of these claims.

In paragraph 27 of the Office Action, claims 3 and 18 have been deemed allowable if rewritten in independent form. Applicants again gratefully acknowledge the allowability of claims 3 and 18. Applicants have amended claim 3 in independent form, incorporating all of the limitations of its base claim, claim 2. Thus claim 3 is currently in condition for allowance. Furthermore, Applicants have added claim 19 which incorporates all of the limitations of allowable claim 3, plus additional limitations. Thus claim 19 is also in condition for allowance. Applicants respectfully defer rewriting claim 18 in independent form until final resolution of rejected claim 8.

In paragraphs 3-13, claims 2, 4, 8 and 18 have been objected to because of certain informalities. As discussed with the Examiner in an interview conducted with the undersigned representative of Applicants on March 18, 2009, Applicants have amended claims 2, 3 and 8 as suggested in the Office Action. Withdrawal of these objections is therefore respectfully requested.

In paragraphs 17-22, claim 2 has been rejected under § 103 over Clemens. Applicants respectfully traverse this rejection.

Independent claim 2 requires a plurality of magnetoresistance effect elements formed “on a substrate of a single chip.” Claim 2 further requires that the magnetoresistance effect elements “are placed symmetrically with respect to center lines of the rectangular shape.” In rejecting these limitations of independent claim 2, the Office Action points to the circuit representation illustrated in Figure 2 of Clemens. Applicants respectfully disagree that this abstract circuit representation reads on the specific placement of the magnetoresistance elements on an actual substrate as explicitly required by independent claim 2. As discussed briefly with the Examiner during the interview, the illustrations by Clemens in Figures 2, 4, 6 and 8 are the historically traditional ways in which draftsmen represent a bridge circuit for electrical drawings. There is absolutely no relationship between this abstract representation and the actual physical placement of the MR elements on an actual substrate. Clemens does not disclose at all how his MR elements are actually placed on a substrate.

To the best of Applicant’s knowledge, the only prior art of record which shows the actual physical placement of MR elements on a substrate is Alderhoff (WO 00/79298). As illustrated in Figures 1a, 1b, 3, 4 and 6, Alderhoff has the same abstract representation of a bridge circuit as disclosed in Clemens. Yet, when Alderhoff performed its actual placement of the MR elements on an actual substrate as illustrated in Figures 8-11, this placement was in no way related to the abstract circuit representation of a bridge. Furthermore, as previously distinguished by the Applicant, Alderhoff does not show the symmetry about center lines as expressly required by independent claim 2.

Therefore, Applicants respectfully disagree that the abstract circuit diagram of Clemens illustrating a bridge circuit in any way teaches one skilled in the art how MR elements should be physically placed on an actual substrate. Withdrawal of the rejection of independent claim 2 and its dependent claims is therefore respectfully requested.

In paragraph 24, claim 8 has been provisionally rejected under § 101 as claiming the same invention as that of claim 4 of co-pending application serial no. 11/682,841. Applicants respectfully point out that claim 4 of co-pending application serial no. 11/682,841 was amended on

May 6, 2009, after the issuance of the present Office Action. As that amendment changed the scope of claim 4, the present provisional rejection of claim 8 under § 101 is rendered moot and withdrawal thereof is respectfully requested.

As each of the claims of the present application are condition for allowance, such action is earnestly solicited.

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Respectfully submitted,

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